

Final PUBLIC MEETING

FOR THE

Phased Powell River, North Fork Powell River, South Fork Powell River, Butcher Fork, Wallen Creek TMDL Development

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DEQ- Southwest Regional Office



Overview

- Department of Environmental Quality
 1. Conducts Water Sampling
 2. Assess the data by comparing it to standards
 3. Problem (**Impaired**) waters are listed
In an EPA report called the 303(d)
Total Maximum Daily Load (TMDL) List

TMDL required by State and Federal Law

Total Maximum Daily Loads are Mandated by Law

- Federal 1972 Clean Water Act requires
 - **Water Quality Monitoring**
 - **Periodic Assessment and Impaired Waters Listing**
 - **Develop TMDLs for Impaired Waters**
- Virginia's 1997 Water Quality Monitoring Information and Restoration Act (WQMIRA) requires
 - **TMDLs for Impaired Waters**
 - **An Implementation Plan**
- 1999 Consent Decree with EPA to develop TMDL Reports for all 1998 listed streams by 2010

Designated Uses

Recreation (swimming and boating)

Aquatic Life

balanced, indigenous including game fish



Trout Waters

Wildlife

Edible natural resources

Fish

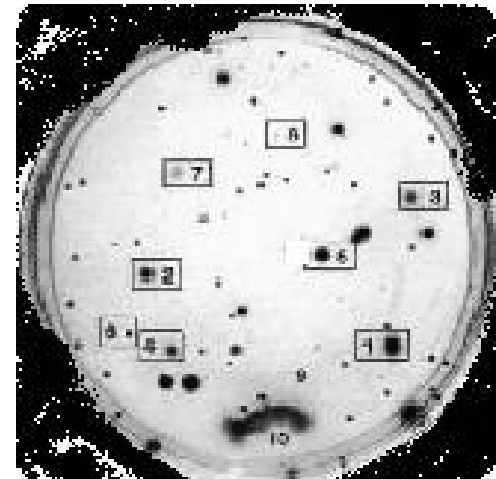
Shellfish (on the coast)

Public Water Supply



What are Water Quality Standards?

- **Numeric or Narrative** Limits designed to protect designated uses
 - **Recreational use**: measured by the number of colony forming units of E.coli in the water
 - **Aquatic life use**: measured by the numbers and varieties of aquatic organisms that live in our streams

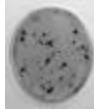


Powell River

Why Are We Here?

Two Separate Problems!

#1 Bacteria



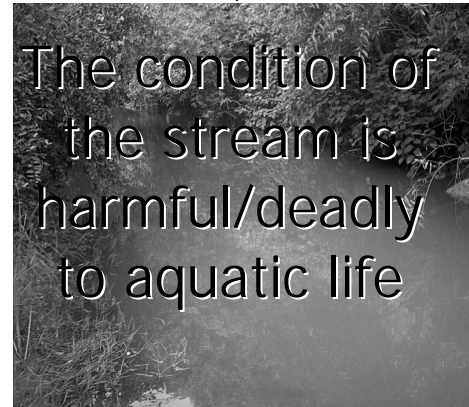
Bacteria levels
are excessive



#2 Aquatic Life



The condition of
the stream is
harmful/deadly
to aquatic life

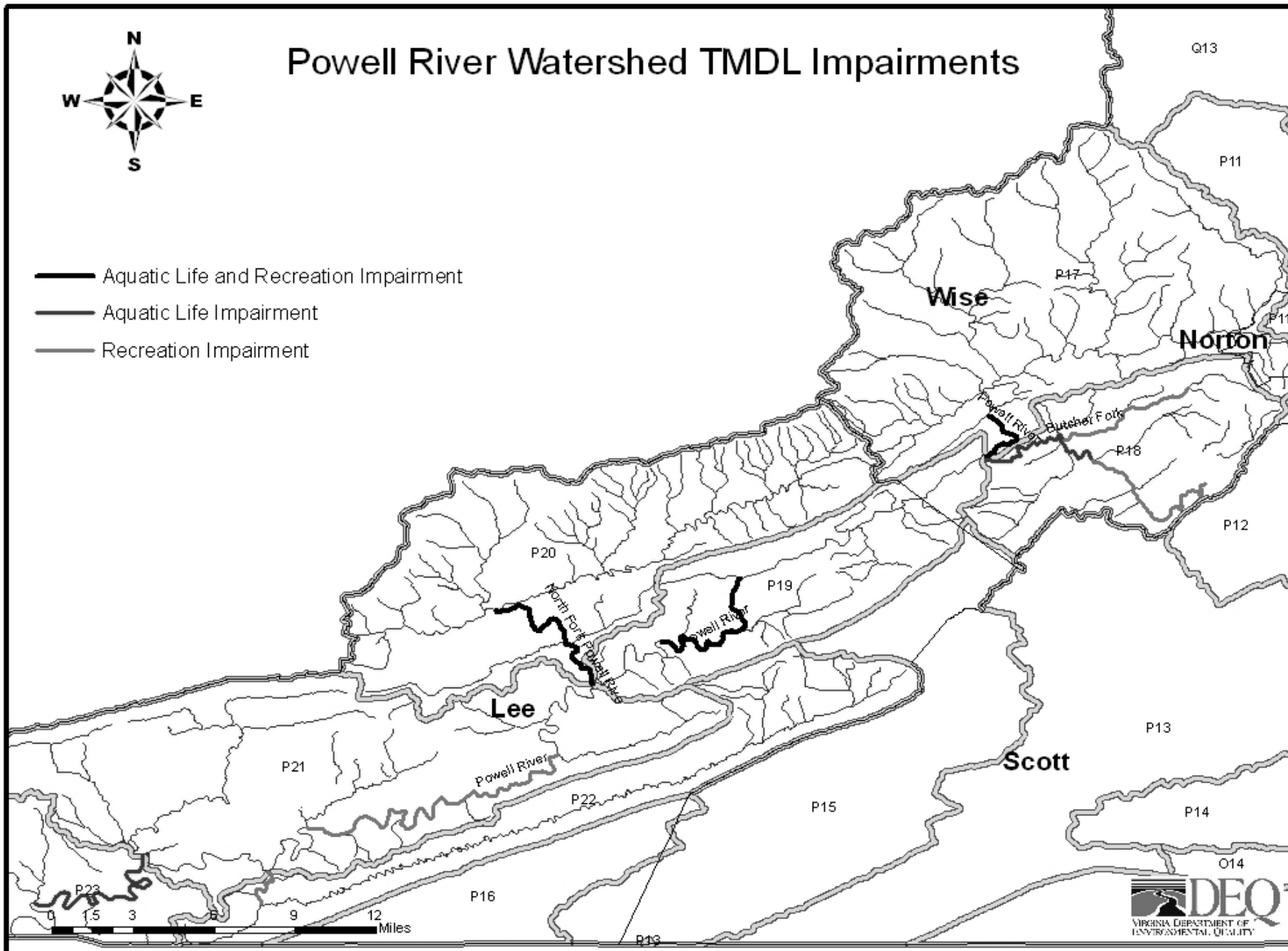


Approximately 82 impaired stream miles.



Powell River Watershed TMDL Impairments

- Aquatic Life and Recreation Impairment
- Aquatic Life Impairment
- Recreation Impairment



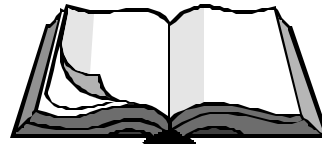
What is a TMDL or Total Maximum Daily Load?

- **Amount of a pollutant that a waterbody can receive and still meet water quality standards**
- It is pollutant specific
 - Aquatic Life Stressors
 - Bacteria
- It is a process to restore impaired waters
- A special study that:
 - Identifies all significant pollution sources,
 - Calculates amount of pollution from each source, and
 - Calculates pollution reductions, by source, needed to attain water quality standards.

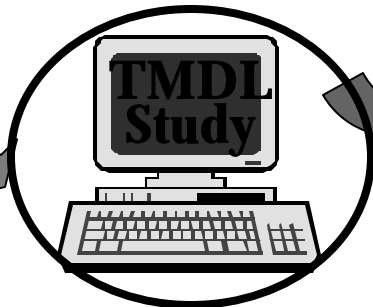
What Next?

We Are Here Phased TMDL

Implementation Plan



Total
Maximum
Daily
Load



- Identifies permit controls, best management practices, or remediation options needed to make necessary pollutant reductions

Polluted

- Calculates amounts from each source
- Tracks pollutants in the system
- Sets maximum pollutant load
- Estimates necessary pollutant reductions

Implementation

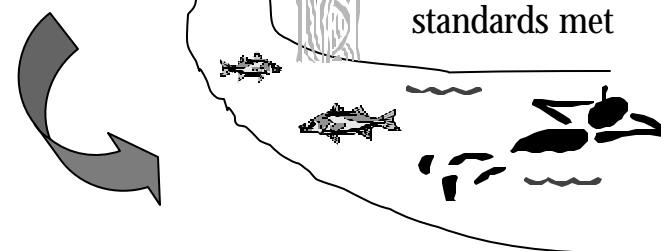
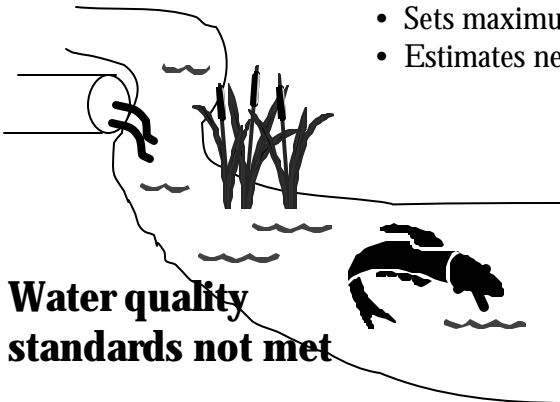


Clean

Water quality
standards met

The Process

Water quality
standards not met



Nested TMDLs

- **Bailey's Trace, Ely Creek, Gin Creek, Lick Branch, Puckett Creek and Stone Creek**
- **Nested within the Straight Creek TMDL**

Information

- **TMDL**

- **Virginia**

- **DEQ homepage** - <http://www.deq.virginia.gov/tmdl>

- **Federal**

- **EPA homepage** - <http://www.epa.gov/owow/tmdl/>

Google™

Thank You !

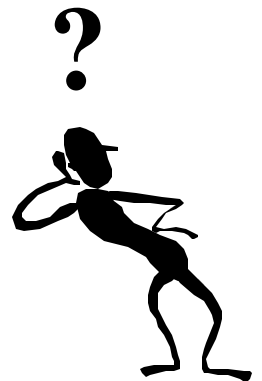
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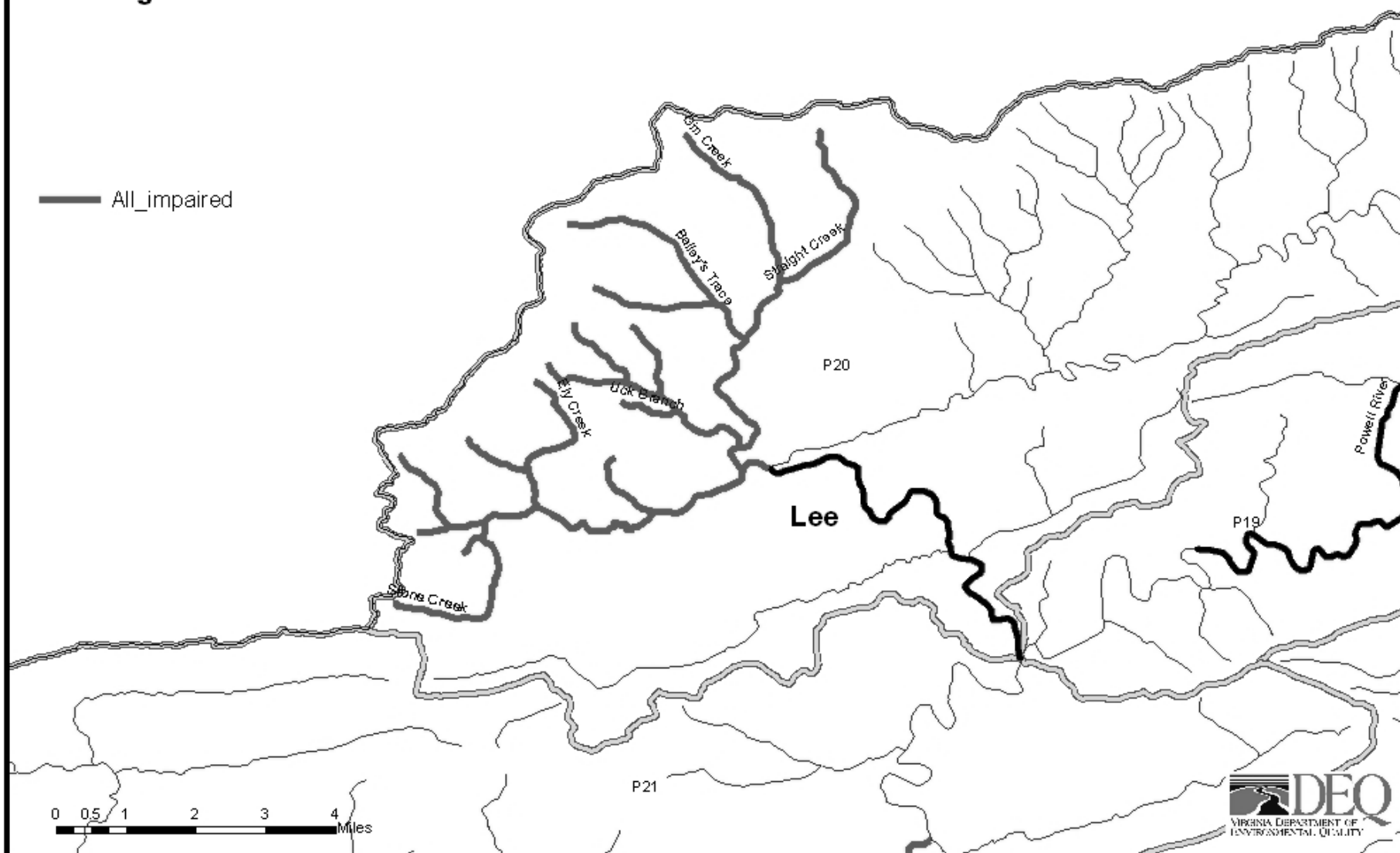
www.deq.virginia.gov





Straight Creek Nested TMDLs

— All_impaired





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